UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/460,174	12/10/1999	WALTER WESLEY HOWE	99-006	2106

7590 05/09/2002

LEONARD C SUCHTA
GTE SERVICE CORPORATION
600 HIDDEN RIDGE HQE03G13
IRING, TX 75038

EXAMINER
LELE, TANMAY S

ART UNIT	PAPER NUMBER
2681	

DATE MAILED: 05/09/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/460,174	HOWE, WALTER WESLEY	
	Examiner	Art Unit	
	Tanmay Lele	2681	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *10 December 1999* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2 .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "70" and "71" have both been used to designate "Data Unit." A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 5, 10, and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

There is no antecedent basis in claim 5 for "said alternate network."

There is no antecedent basis in claim 10 for "said home register."

There is no antecedent basis in claim 14 for "said wireless modem."

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claim 15 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. "An arbitrarily arranged number" lacks adequate description.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 1, 5, 6, 7, 10, 11, 12, 14, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sawyer U.S Patent No. 5,978,677 in view of Mirashrafi et. al U.S. Patent No. 5,889,774.

Regarding claim 1, Sawyer teaches of a communication system that provides a path between two mobile units, means for locating a serving switch last in contact with the mobile unit, means for assigning a temporary local directory number to a serving switch, and shows the means of communication between the two mobile units (from columns 1 - 2, lines 45 – 4, respectively). Sawyer does not explicitly show the use of a hard wired data unit being connected to an alternate non-public switched telephone network and to the public switch telephone network at a location local to the serving switch and dialing temporary local directory number to activate a connection with the serving switch. In an analogous art, Mirashrafi et. al teach the use of a hard wired data unit being connected to an alternate non-public switched telephone network and to the public switch telephone network. Mirashrafi et. al, describe "internet based voice communications with a telephone motif..." and further states, "the internet provides the 'switching' architecture for the system, while the computer works as the 'handset,' or audio interface," (column 1, lines 31 – 36). Mirashrafi et. al further indicate the internet being, "free of toll charges," (column 1 line 40) and discusses that " the prior art approach of finding the

internet telephony closest to the destination address may offer the simplest technical solution and seemingly the cheaper connection..." (column 3 lines 31–35). Mirashrafi et. al also state, " ...the primary server somehow determines which server in a community of similarly enabled servers (i.e. servers with the hardware/software necessary to provide access to the PSTN) is closest to the destination address and completes the telephone call by routing the telephone call through a number of intermediate servers on the internet to the selected server..." (column 3 lines 4 –15). In light of Mirashrafi et. al's discussion stated above (internet telephony, no charge, server control of communication path, ect), it would have been obvious to a person skilled in the art, at the time of invention, to modify Sawyer's model to achieve the described invention. By placing Mirashrafi et. al into Sawyer, the same function of "local" communication through an "alternate non-PSTN" connecting a "hard wired unit" to a "mobile data unit" would have been achieved (and thus alleviating all long distance tolls). Mirashrafi et. al show a plurality of devices connected to the PSTN in figure 1 (handsets, bridgeports or internet/PSTN change over servers) which further describes the claimed when viewed with Sawyer.

Regarding claim 5, Sawyer teaches all of the claimed limitations as recited in claim 1 above. Sawyer does not teach of a communicating means that includes a server for controlling communication through the alternate network. Mirashrafi et. al make direct reference to " the primary server, which somehow, determines which server in a community of similarly enabled servers is closest to the destination address and completes the telephone call through a number of intermediate servers on the internet to the selected server" (column 3, lines 6 -12) .

Regarding claim 6, Sawyer teaches all of the limitations as recited in claims 1 and 5 above. Sawyer does not teach that the alternate network is based in the Internet protocol.

Mirashrafi et. al make direct reference to the process occurring on the internet (column 3 line 52, as one example) and "internet telephony" (column 3 line 51, as one example).

Regarding claim 7, Sawyer teaches all the limitations of claims 1 and 5 above. Sawyer does not teach of a server operating through the alternate network which selects a local communication path to the serving switch. Mirashrafi et. al further teache that "the prior art approach of simply finding the internet telephony enabled server closest to the destination address..." (column 3, lines 31-33). Mirashrafi et. al latter describe a "bridgeport," which is an "internet/PSTN changeover server to place the voice call to the PSTN extension and facilitate the voice call..." (column 5, lines 13-17). It would have been obvious to one skilled in the art that two statements describe a system that determines a local server (aka bridgeport) that thus interfaces with a local PSTN to complete the connection.

Regarding claim 10. Claim 10 includes all the limitations of claim 1. Claim 1 explains a more generic system (communication system) than that in claim 10 (a telephone system). Sawyer teaches of a mobile telephone system, comprising of two wireless units, a home location register, a visited location register in selective communication with the home location register and including a database showing that the visited location register was last in communication with a wireless unit, the visited location register establishing a temporary local directory number and forwarding this temporary local directory number to the home location register for delivery to a switch. Sawyer does not teach of an alternate non-public switch telephone network controlled by at least one server, nor make reference to a "telephone system." Mirashrafi et al teach of an alternate non-public switch telephone network controlled by at least one server. This claim is therefore rejected for the same reasons in claim 1, ~~5, 6, and 7.~~

Regarding claim 11, Sawyer teaches all of the limitations as recited in claim 10 above. Sawyer does not teach that the alternate network is an Internet protocol based network. Mirashrafi et. al make direct reference to the process occurring on the internet (column 3 line 52, as one example) and "internet telephony" (column 3 line 51, as one example). It would have been obvious to one skilled in the art that the internet would be an "Internet protocol based network."

Regarding claim 12, Sawyer and Mirashrafi et. al teach all of the claimed limitations as disclosed in claim 10. Sawyer teaches of a mobile telephone system. Sawyer does not detail about the alternate network which includes a pool of hard-wired data units, were the hard-wired data units are dispersed at geographically remote locations with the server selecting one of the hard-wired data units using the temporary local directory number. Mirashrafi et. al teach that the process occurs on the internet (column 3 line 52, as one example) and "internet telephony" (column 3 line 51, as one example) and how "the primary server, which somehow, determines which server in a community of similarly enabled servers is closest to the destination address and completes the telephone call through a number of intermediate servers on the internet to the selected server" (column 3, lines 6 -12). It would have been obvious to one skilled in the art at the time of invention that the hard wire units must be dispersed geographically, as the alternate network (internet protocol based) is large and thus has access points spread out (as modems accessing the Internet are widely spaced geographically).

Regarding claim 14, Sawyer teaches of a mobile telephone system for communicating between a two mobile using the temporary local directory number to establish communication with the wireless unit. Sawyer does not teach of communicating between a hard-wired data unit

and a mobile data unit including a server connected to and controlling an Internet based protocol network for determining the temporary local directory number of a last serving switch in contact with the mobile unit, nor about establishing communication with the wireless unit through use of Internet based protocol network. Mirashrafi et. al teach of communicating between a hard-wired data unit and a mobile data unit including a server connected to and controlling an Internet based protocol network for determining the temporary local directory number of a last serving switch in contact with the mobile unit, about establishing communication with the wireless unit through use of Internet based protocol network, as detailed in the rejections for claims 1,5,6,7,10 and 11.

In reference to claim 16, Sawyer in view of Mirashrafi, have fully described this method of providing an optimum connector path between a hard-wired data unit and a mobile data unit comprising the steps of locating a serving switch last in contact with the mobile data unit, assigning a temporary local directory number to the serving switch, and communicating with the mobile data unit including the sub-steps of connecting the hard-wired data unit to an alternate non-public switched telephone network and to the public switch telephone network at a location local to the serving switch, dialing the temporary local directory number, and activating a connection with the serving switch, as detailed in claims 1,5,6,7,10, and 11.

8. Claims 2 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sawyer U.S Patent No. 5,978,677, in view of Mirashrafi et. al U.S. Patent No. 5,889,774 and in further view of Alperovich U.S. Patent No. 5,991,621.

In regards to claim 2, Sawyer and Mirashrafi et. al teach all of the claimed limitations as disclosed in claim 1. Sawyer and Mirashrafi do not explicitly refer to the visited location register. Alperovich further elaborates the routing process and better defines apparatus and

methodology (column 1, lines 41-47). It would have been obvious to persons skilled in the art at the time of invention, that Alperovich was indeed describing a visited location register (VLR), by definition and therefore could easily have been inserted into Sawyer and Mirashrafi. Those skilled in the art with knowledge on the routing of calls outside the normal service area know that a visited location register is necessary and accessed when a user is "roaming" outside their normal area of coverage.

Regarding claim 8, Sawyer and Mirashrafi et. al teach all of the claimed limitations as disclosed in claim 1. Sawyer and Mirashrafi do not teach that the serving switch is local to the mobile data unit so that all calls made through the serving switch will be local calls. Alperovich further explains that, "the network (will) reroute incoming calls to the appropriate mobile switching center (MSC) serving the roaming mobile subscriber, " (column 1, lines 45-47) and further gives an example of the procedure in a subsequent paragraph (column 1 lines 53 – 66), which describe what was being claimed.

9. Claims 3, 4, 9, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sawyer U.S Patent No. 5,978,677, in view of Mirashrafi et. al U.S. Patent No. 5,889,774 and in further view of Hasan U.S. Patent No. 5,724,658.

Regarding claim 3, Sawyer and Mirashrafi et. al teach all of the claimed limitations as disclosed in claim 1. Sawyer and Mirashrafi et. al do not teach of assigning the temporary local directory number based on the geographic location of the serving switch.. Hasan adds the concept of assigning the temporary local directory number based on the geographic location of the serving switch (column 1, lines 39-44). It would be obvious to those skilled in the art at the time of invention that Hasan's concept of location could be added to Sawyer and Mirashrafi's

combination and was even inherent. Those skilled in the art realize that a roaming subscriber receives a temporary number local to the area they are currently roaming within and that the local switching station governs what numbers are local.

Regarding claim 4, Sawyer and Mirashrafi et. al teach all of the claimed limitations as disclosed in claims 1 and 3. Sawyer fails to teach of how the temporary local directory number is used to select the hard-wired data unit from a pool of geographically disposed hard-wired data units by comparing characteristics of the temporary local directory number with characteristics of each phone number associated with each hard-wired data unit on the public switch telephone network. Mirashrafi et al describe "internet based voice communications with a telephone motif..." and further teaches that, "In response, page Bridgeport determines a destination PSTN extension for the requested call. In one embodiment, the determination is based on the attributes of the client computer, e.g zip code or the telephone area code/prefix associated with the client computer." (column 8, lines 40 – 42 and 44 – 47). Mirashrafi et al. fail to teach of reserving a temporary local number. Hasan, has described the process of reserving and assigning temporary local directory numbers (column1 lines 39-44). It would have been obvious to a person skilled in the art that this procedure was describing which device to communicate with, based on comparing the requested "page" (call number) versus the client's telephone number and moreover that the "client's" number would have to have been a temporary local directory number as it is not of its original geographic location.

In reference to claim 9, Sawyer and Mirashrafi et. al teach all of the claimed limitations as disclosed in claim 1. Sawyer and Mirashrafi et. al do not specify of assigning temporary local directory number by selecting from a pool of numbers whose geographic base is local to the

serving switch. Hasan further teaches that local exchange carriers are, "reserving and assigning a block of Washington (local in this case) telephone numbers to each wireless telephone service carriers in the Washington area, so that each remote wireless carrier could temporarily assign one of its reserved numbers to a roaming subscriber visiting the Washington (local) area." (column 1 lines 39 – 44), which describe the claimed.

Regarding claim 13, Sawyer and Mirashrafi et. al teach all of the claimed limitations as disclosed in claim 10 and 12. Sawyer, in view of Mirashrafi et. al and Hasan, have fully treated the claim of a telephone system where the server compares a temporary local directory number with a phone number assigned to each of the hardwired data units on a public switch telephone network to determine the hard-wired data unit closest to the serving switch so as to establish a local call over the public switch telephone network in the prior rejections 1, 7, and 10-12.

Regarding claim 15, Sawyer and Mirashrafi et. al teach all of the claimed limitations as disclosed in claim 14. Sawyer and Mirashrafi et fail to teach that the temporary local directory number can be a callable telephone number. Hasan has described (column 1, lines 39-44) that the temporary local directory number is callable which is what is being claimed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tanmay S Lele whose telephone number is (703) 305-3462. The examiner can normally be reached on 8:30 – 6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dwayne Bost can be reached on (703) 305-4778. The fax phone numbers for the

organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-0377.

TSL

Tanmay Lele
Examiner
Art Unit 2681

DWAYNE BOST
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

tsl
May 3, 2002